Product	Bath & Tile Cleaner
Revision date	21 June 2017
Revision	1

Safety Data Sheet (SDS)

Section 1: Identification of the substance/preparation and of the company/undertaking

1.1 Product identifier

Product name	**Bath & Tile Cleaner**
Product no.	**107**
Synonyms, Trade names	No information available.

1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses	Cleaning agent.
Uses advised against	No uses advised against are identified.

1.3 Details of the supplier of the safety data sheet

Supplier	Kitchenmaster NI Ltd 11 Comber Road Belfast BT8 8AN United Kingdom Tel: 028 9081477 02890812881
Contact person	sales@kitchenmaster-ni.com

1.4 Emergency telephone number

Emergency telephone	Emergency Telephone Number: 028 9081 4777 08:30 – 17:00 Monday to Thursday 08:30 – 16:30 Friday

Section 2: Hazards identification

2.1 Classification of the substance or mixture

Classification (EC 1272/2008)

Physical and chemical hazards	Not classified
Human health	Eye Irrit.2A - H319
Environment	Aquatic Chronic 3 - H412

2.2 Label elements

Contains

Alcohols, C12-15, ethoxylated
Benzyl-C12-14-alkyldimethylammonium chlorides

Label in accordance with (EC) no. 1272/2008

Signal word

Danger

Hazard statements

H319 Causes serious eye irritation.
H412 Harmful to aquatic life with long lasting effects.

Precautionary statements

Prevention
P264 Wash hands thoroughly after handling.
P273 Avoid release to the environment.
P280 Wear protective gloves/ protective clothing/eye protection/face protection.
Response

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337 + P313 If eye irritation persists: Get medical advice/attention.

2.3 Other hazards

None known.

Section 3: Composition/identification of ingredients

3.1 Substance

Not applicable.

3.2 Mixtures

Name	Product identifier	Reg. EU 1272/2008	%
citric acid	CAS-No.: 77-92-9 EC No.: 201-069-1	Eye Irrit.2A - H319	1-10%
Alcohols, C12-15, ethoxylated	CAS-No.: 68131-39-5 EC No.: 500-195-7	Eye Dam. 1 - H318, Aquatic Acute 1 - H400, Aquatic Chronic 3 - H412	1-10%
Ethanol	CAS-No.: 64-17-5 EC No.: 200-578-6 REACH Reg No.: 01-2119457610-43	Eye Irrit.2A - H319, Flam. Liq 2- H225	0.1-1%
2-butoxyethanol	CAS-No.: 111-76-2 EC No.: 203-905-0 REACH Reg No.: 01-2119475108-36-0000	Acute Tox 4 - H302, Acute Tox 4 - H312, Acute Tox 4 - H332, Skin Irrit.2 - H315, Eye Irrit.2A - H319	0.1-1%
Benzyl-C12-14-alkyldimethylammonium chlorides	CAS-No.: 85409-22-9 EC No.: 939-350-2 REACH Reg No.: 01-2119970550-39-0000	Aquatic Acute 1 - H400, Aquatic Chronic 1 - H410, Acute Tox 4 - H302, Skin Corr. 1B - H314, Eye Dam. 1 - H318	0.1-0.9%
copper sulphate	CAS-No.: 7758-98-7 EC No.: 231-847-6	Acute Tox 4 - H302, Skin Irrit.2 - H315, Eye Irrit.2A - H319, Aquatic Acute 1 - H400, Aquatic Chronic 1 - H410	0.1-0.9%
sodium hydroxide caustic soda	CAS-No.: 1310-73-2 EC No.: 215-185-5	Skin Corr. 1A - H314	0.01-0.1%
ethanol	CAS-No.: 64-17-5 EC No.: 200-578-6	Eye Irrit.2A - H319, Flam. Liq 2- H225	0.001-0.01%

The full text for all hazard statements are displayed in section 16.

Composition comments The data shown are in accordance with the latest EC Directives.

Section 4: First aid measures

4.1 Description of first aid measures

General information Provide general first aid, rest, warmth and fresh air. As a general rule, in case of doubt or if symptoms persist, always call a doctor. Seek medical attention for all burns and eye injuries, regardless how minor they may seem. First aid personnel must be aware of own risk during rescue.

Inhalation Remove person to fresh air and keep comfortable for breathing. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Seek medical attention.

Ingestion If this product is ingested, remove victim immediately from source of exposure. Rinse mouth thoroughly. Do not induce vomiting. Provide fresh air, warmth and rest. Get medical attention. Never give anything by mouth to an unconscious person.

Skin contact Remove victim immediately from source of exposure. Remove contaminated clothing, shoes and jewelry and wash before reuse. Wash the skin immediately with water. Obtain medical attention if irritation persists or if blistering occurs.

Eye contact Do not rub eye. If this product contacts the eyes, gently flush eyes with water for at least fifteen (15) minutes, lifting the upper and lower eyelids occasionally. Remove contact lenses if present and easy to do so. Avoid contaminating unaffected eye. Seek medical attention.

4.2 Most important symptoms and effects, both acute and delayed

General information The severity of the symptoms described will vary dependent on the concentration and the length of exposure.

Inhalation	Inhalation of mist or vapor may cause respiratory tract irritation.
Ingestion	Exposure to liquid product may cause irritation to mouth, throat and esophagus.
Skin contact	Prolonged or repeated contact may be irritating to the skin.
Eye contact	Causes serious eye irritation, including redness and tearing.

4.3 Indication of any immediate medical attention and special treatment needed

Notes to the physician	Treat symptomatically.

Section 5: Fire-fighting measures

5.1 Extinguishing media

Extinguishing media	Use fire-extinguishing media appropriate for surrounding materials. Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Unsuitable extinguishing media	High volume water jet.

5.2 Special hazards arising from the substance or mixture

Hazardous combustion products	During fire, toxic gases (CO, CO2) are formed.
Unusual fire & explosion hazards	No unusual fire or explosion hazards noted.
Specific hazards	Fire creates: Carbon monoxide (CO). Carbon dioxide (CO2). In the event of damage to packaging, floors may become slippery, avoid falls.

5.3 Advice for firefighters

Special fire fighting procedures	If possible, fight fire from protected position. Avoid breathing fire vapours. Ventilate closed spaces before entering them. Containers close to fire should be removed immediately or cooled with water if safe to do so. Do not release runoff from fire to drains or watercourses.
Protective equipment for firefighters	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

Section 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions	Wear protective clothing as described in Section 8 of this safety data sheet. Provide adequate ventilation. Eliminate all sources of ignition. Avoid inhalation of vapours and contact with skin and eyes. In case of inadequate ventilation, use respiratory protection. Do not touch or walk through spilled material. If necessary evacuate surrounding areas.
For emergency responders	Follow safe handling advice and personal protective equipment recommendations for normal use of product.

6.2 Environmental precautions

Environmental precautions	Do not discharge onto the ground or into water courses.

6.3 Methods and material for containment and cleaning up

Spill clean up methods	Stop leak if possible without risk. DO NOT touch spilled material! When dealing with a spillage, wear necessary protective equipment. Cover drains. Absorb spillage with non-combustible, inert absorbent material. Ensure that waste and contaminated materials are collected and removed from the work area as soon as possible in a suitably labelled container. Wash thoroughly after dealing with a spillage. Floors may become slippery, avoid falls.

6.4 Reference to other sections

Reference to other sections	See section 1 for emergency contact. For personal protection, see section 8. For waste disposal, see section 13.

Section 7: Handling and storage

7.1 Precautions for safe handling

Handling

Read and follow manufacturer's recommendations. Use proper personal protection when handling (refer to Section 8). Do not handle broken packages without protective equipment. Do not use contact lenses.
Keep away from heat, sparks and open flame. Avoid spilling, skin and eye contact. Do not eat, drink or smoke when using the product. Wash thoroughly after handling.

7.2 Conditions for safe storage, including any incompatibilities

Storage precautions

Keep upright, locked up and out of reach of children. Keep the product in its original container. Store in cool dry areas away from direct sunlight or sources of ignition. Keep away from oxidizing agents and acids.

Storage class

Chemical storage.

7.3 Specific end use(s)

Specific end use(s)

The identified uses for this product are detailed in Section 1.2.

Usage description

Use only according to directions. Replace and tighten cap after use.

Section 8: Exposure controls/Personal protection

8.1 Control parameters

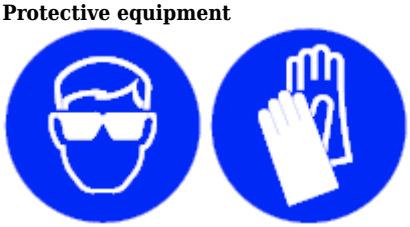
Component	STD	TWA (8 Hrs)		STEL (15mins)		Notes
2-butoxyethanol	OEL	20 ppm	98 mg/m^3	50 ppm	246 mg/m^3	
2-butoxyethanol	WEL	25 ppm	123 mg/m^3	50 ppm	246 mg/m^3	
sodium hydroxide caustic soda	OEL				2 mg/m^3	
sodium hydroxide caustic soda	WEL				2 mg/m^3	
ethanol	OEL			1000 ppm		
ethanol	WEL	1000 ppm	1920 mg/m^3			

Ingredient comments

WEL - Workplace Exposure Limits - EH40/2005 Workplace exposure limits.
OEL - Occulational Exposure Limit - Ireland, Occupational Exposure Limits 2016.

8.2 Exposure Controls

Protective equipment



Engineering measures

Provide adequate ventilation, including appropriate local extraction, to ensure that the defined occupational exposure limit is not exceeded.

Respiratory equipment

If ventilation is inadequate, suitable respiratory protection must be worn. EN 136/140/145/143/149. The specific respirator selected must be based on contamination levels found in the work place. Where risk assessment shows air-purifying respirators are appropriate a full face respirator conforming to EN143 should be used, and suitable respirator cartridges as a backup to engineering controls. Recommended: Respirator with combination filter for organic vapour/particulate (EN 141). Consult manufacturer for specific advice.

Hand protection

Where hand contact with the product may occur the use of gloves approved to relevant standards (e.g. Europe: EN374) is recommended. (EU Directive 89/686/EEC). Gloves must be inspected prior to use. Suggested material: Nitrile. Breakthrough time: >480 minutes. Consult manufacturer for advice.
Selection of the glove material depends on consideration of the penetration times, rates of diffusion and degradation, and concentration specific to the workplace. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices.

Eye protection

Wear safety goggles or face shield to prevent any possibility of eye contact. Use equipment for eye protection tested and approved under appropriate government standards such as EN 166(EU).

Other protection	The selected clothing must satisfy the European norm standard EN 943. Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handing this product.
Hygiene measures	Observe normal hygiene standards. Wash promptly if skin becomes contaminated. When using do not eat, drink or smoke. Wash hands after use.
Process conditions	Ensure that eye flushing systems and safety showers are located close by in the work place.

Section 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance	Liquid.
Colour	Aqua.
Odour	No information available.
Odour threshold - lower	No information available.
Odour threshold - upper	No information available.
pH-Value, Conc. Solution	2.50
pH-Value, Diluted solution	No information available.
Melting point	No information available.
Initial boiling point and boiling range	No information available.
Flash point	No information available.
Evaporation rate	No information available.
Flammability state	No information available.
Flammability limit - lower(%)	No information available.
Flammability limit - upper(%)	No information available.
Vapour pressure	No information available.
Vapour density (air=1)	No information available.
Relative density	1.008g/cm^3 @ 20.00 °C
Bulk density	No information available.
Solubility	Soluble in water.
Decomposition temperature	No information available.
Partition coefficient; n-Octanol/Water	No information available.
Auto ignition temperature (°C)	No information available.
Viscosity	No information available.
Explosive properties	Not classified as explosive.
Oxidising properties	No information available.

9.2 Other information

Molecular weight	No information available.
Volatile organic compound	No information available.
Other information	None noted.

Section 10: Stability and reactivity

10.1 Reactivity

Reactivity Reaction with: Strong oxidising agents. Reaction with strong bases.

10.2 Chemical stability

Stability Stable under normal temperature conditions and recommended use.

10.3 Possibility of hazardous reactions

Hazardous reactions Avoid strong oxidizers. Reacts with alkali and bases.
Hazardous polymerisation Will not polymerise.
Polymerisation description Not applicable.

10.4 Conditions to Avoid

Conditions to avoid Heat, sparks, open flames, temperature extremes and direct sunlight.

10.5 Incompatible materials

Materials to avoid Do not mix with other chemicals unless listed on directions. Avoid contact with oxidising agents, strong alkalis, and strong acids.

10.6 Hazardous decomposition products

Hazardous decomposition products Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours.

Section 11: Toxicological information

11.1 Information on toxicological effects

Toxicological information No toxicological information for the overall finished product.

Acute toxicity (Oral LD50) 2-BUTOXYETHANOL (CAS 111-76-2): 1746 mg/kg Rat. Alcohols, C12 - 15, ethoxylated (CAS 68131-39-5): > 5000 mg/kg Rat. Citric acid (CAS 5949-29-1): 5200 mg/kg Rat. SODIUM HYDROXIDE (CAS 1310-73-2): 325 mg/kg bw Rabbit.

Acute toxicity (Dermal LD50) 2-BUTOXYETHANOL (CAS 111-76-2): 0.63 mL/kg Rabbit. Alcohols, C12 - 15, ethoxylated (CAS 68131-39-5): > 2000 mg/kg Rat. Citric acid (CAS 5949-29-1): > 2000 mg/kg Rat. SODIUM HYDROXIDE (CAS 1310-73-2): 1350 mg/kg Rabbit.

Acute toxicity (Inhalation LD50) 2-BUTOXYETHANOL (CAS 111-76-2): 450 ppm (vapours) Rat 4 hours. Alcohols, C12 - 15, ethoxylated (CAS 68131-39-5): > 1.6 mg/l (dust/mist) Rat 4 hours.

Serious eye damage/irritation Causes serious eye irritation.

Skin corrosion/irritation No information available.

Respiratory sensitisation No information available.
Skin sensitisation No information available.

Germ cell mutagenicity No information available.

Carcinogenicity No information available.

Specific target organ toxicity - Single exposure:
STOT - Single exposure No information available.
Specific target organ toxicity - Repeated exposure:
STOT - Repeated exposure No information available.

Inhalation Inhalation of mist or vapor may cause respiratory tract irritation.
Ingestion Exposure to liquid product may cause irritation to mouth, throat and esophagus.
Skin contact Prolonged or repeated contact may be irritating to the skin.
Eye contact Causes serious eye irritation, including redness and tearing.
Waste management When handling waste, consideration should be made to the safety precautions applying to handling of the product.

Routes of entry No information available.

Target organs Eyes, skin, digestive system, respiratory system.

Aspiration hazards: No information available.
Reproductive toxicity: No information available.

Name	LD50 oral	LD50 dermal	LD50 inhalation
Benzyl-C12-14-alkyldimethylammonium chlorides	379.50mg/kg Rat	3412.00mg/kg Rabbit	
Alcohols, C12-15, ethoxylated	>5000.00mg/kg Rat		
copper sulphate	520.00mg/kg Rat		

Section 12: Ecological information

12.1 Toxicity

Acute toxicity - Fish 2-BUTOXYETHANOL (CAS: 111-76-2) LC50 1474 mg/l (96 hours, Rainbow trout) . Alcohols, C12 -15, ethoxylated (CAS: 68131-39-5) LC50 0.59 mg/l (96 hours, Pleuronectes platessa). Citric acid (CAS: 5949-29-1) LC50 440 mg/l Leuciscus idus (48 hours, Golden orfe). SODIUM HYDROXIDE (CAS: 1310-73-2) LC50 45.4 mg/l (96 hours, Rainbow trout).

Acute toxicity - Aquatic invertebrates 2-BUTOXYETHANOL (CAS: 111-76-2) EC50 1550 mg/l (48 hours, Daphnia magna). Alcohols, C12 -15, ethoxylated (CAS: 68131-39-5) EC50 0.14 mg/l (48 hours, Daphnia magna). Citric acid (CAS: 5949-29-1) EC50 > 100 mg/l (48 hours, Daphnia magna). SODIUM HYDROXIDE (CAS: 1310-73-2) EC50 40.4 ug/L (48 hours, Ceriodaphnia).

Acute toxicity - Aquatic plants 2-BUTOXYETHANOL (CAS: 111-76-2) EC50 72 hr = 911 mg/l (Pseudokirchneriella subcapitata). Alcohols, C12 -15, ethoxylated (CAS: 68131-39-5) EC50 72 hours 0.75 mg/l (Selenastrum capricornutum). Citric acid (CAS: 5949-29-1) Toxicity threshold 192 hours 640 mg/l (Scenedesmus quadricauda).

Acute toxicity - Microorganisms No information available.
Chronic toxicity - Fish No information available.
Chronic toxicity - Aquatic invertebrates No information available.
Chronic toxicity - Aquatic plants No information available.
Chronic toxicity - Microorganisms No information available.
Ecotoxicity Harmful to aquatic life with long lasting effects.
Eco toxilogical information No ecological toxicity available on the overall finished product.

12.2 Persistence and degradability

Degradability The degradability of the product has not been stated.
Biological oxygen demand No information available.
Chemical oxygen demand No information available.

12.3 Bioaccumulative potential

Bioaccumulative potential No data available on bioaccumulation.
Bioacculmation factor No information available.
Partition coefficient; n-Octanol/Water No information available.

12.4 Mobility in soil

Mobility Soluble in water.

12.5 Results of PBT and vPvB assessment

Results of PBT and vPvB assessment The PBT Expert Working Group of the Technical Committee of New and Existing Chemicals in its May 2007 meeting concluded that the following product is a very persistent and very bioaccumulative substance: 5-tert-butyl-2,4,6-trinitro-m-xylene (Musk xylene, EC No: 201-329-4, Cas No: 81-15-2.)

12.6 Other adverse effects

Other adverse effects None known.

Name	Acute toxicity (Fish)	Acute toxicity (Aquatic invertebrates)	Acute toxicity (Aquatic plants)
Benzyl-C12-14-alkyldimethylammonium chlorides	LC50 0.52mg/l Freshwater Fish	EC50 0.02mg/l Daphnia magna	

Section 13: Disposal considerations

Waste management When handling waste, consideration should be made to the safety precautions applying to handling of the product.

13.1 Waste treatment methods

Disposal methods Dispose of waste and residues in accordance with local authority requirements.

Section 14: Transport information

14.1 UN number

UN no. (ADR) Not applicable.
UN no. (IMDG) Not applicable.
UN no. (IATA) Not applicable.

14.2 UN proper shipping name

ADR proper shipping name Not applicable.
IMDG proper shipping name Not applicable.
IATA proper shipping name Not applicable.

14.3 Transport hazard class(es)

ADR class Not applicable.
IMDG class Not applicable.
IATA class Not applicable.

Transport labels Not applicable

14.4 Packing group

ADR/RID/ADN packing group Not applicable.
IMDG packing group Not applicable.
IATA packing group Not applicable.

14.5 Environmental hazards

ADR No
IMDG No
IATA No

14.6 Special precautions for user

EMS Not applicable.
Emergency action code Not applicable.
Hazard no. (ADR) Not applicable.
Tunnel restriction code Not applicable.

14.7 Transport in bulk according to annex II of MARPOL73/78 and the IBC code

Not applicable.

Section 15: Regulatory information

15.1 Safety, health and environmental regulations/Legislation specific for the substance or mixture

EU legislation Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 with amendments. The UN Globally Harmonized System (GHS) Safety Data Sheet format (Annex IV) is implemented as Annex II of REACH EU No 453/2010 of 20th May 2010 amending regulation (EC) No 1907/2006.

Approved code of practice	Workplace Exposure Limits Guidance Note EH40/2005. 2016 Code of Practice for the Chemical Agents Regulations in accordance with section 60 of the Safety, Health and Welfare at Work Act 2005 (No. 10 of 2005).
Chemical safety assessment	No chemical safety assessment has been carried out.

Section 16: Other information

General information	This Safety Data Sheet is in accordance with Reach Regulation (EC) No 453/2010.
Revision comments	This is a first issue.
Revision date	21 June 2017
Revision	1
Safety data sheet status	Approved.

Hazard statements in full

H319	Causes serious eye irritation.
H302	Harmful if swallowed.
H318	Causes serious eye damage.
H400	Very toxic to aquatic life.
H412	Harmful to aquatic life with long lasting effects.
H225	Highly flammable liquid and vapour.
H312	Harmful in contact with skin.
H315	Causes skin irritation.
H332	Harmful if inhaled.
H314	Causes severe skin burns and eye damage.
H410	Very toxic to aquatic life with long lasting effects.
H226	Flammable liquid and vapour.
H317	May cause an allergic skin reaction.
H301	Toxic if swallowed.
H311	Toxic in contact with skin.
H331	Toxic if inhaled.
H411	Toxic to aquatic life with long lasting effects.
H304	May be fatal if swallowed and enters airways.

Disclaimer

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.